Rigging Character Assets For Morrowind

V2.0 by Bahamut

This tutorial covers on how to get working skinned assets for Morrowind, while tutorial focuses on creating clothing, same method can be applied for rigging creatures on pre-exsisting skeletons.

Trigger warning: grammar might be shit

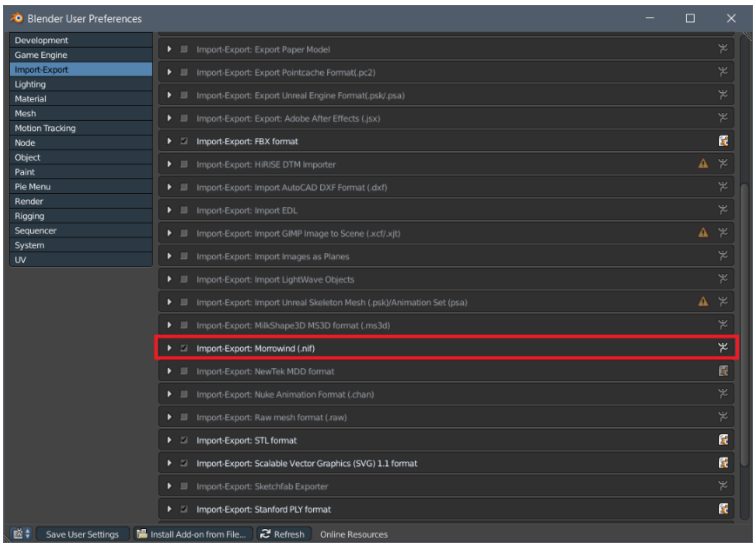
This tutorial does not cover usage of blender.

Preparations

Things we need:

- Blender 2.79 (2.8 not supported at the moment)
  https://www.blender.org/download/
- NIF importer/exporter by Greatness7
  https://www.dropbox.com/s/z0mzowfrec17pxd/io_scene_mw.zip?dl=0
  (if not available from link above, bother eighter me or somone on Morrowind Modding Community discord
- NifSkope not strictly required but you will need it anyway
  http://niftools.sourceforge.net/wiki/NifSkope

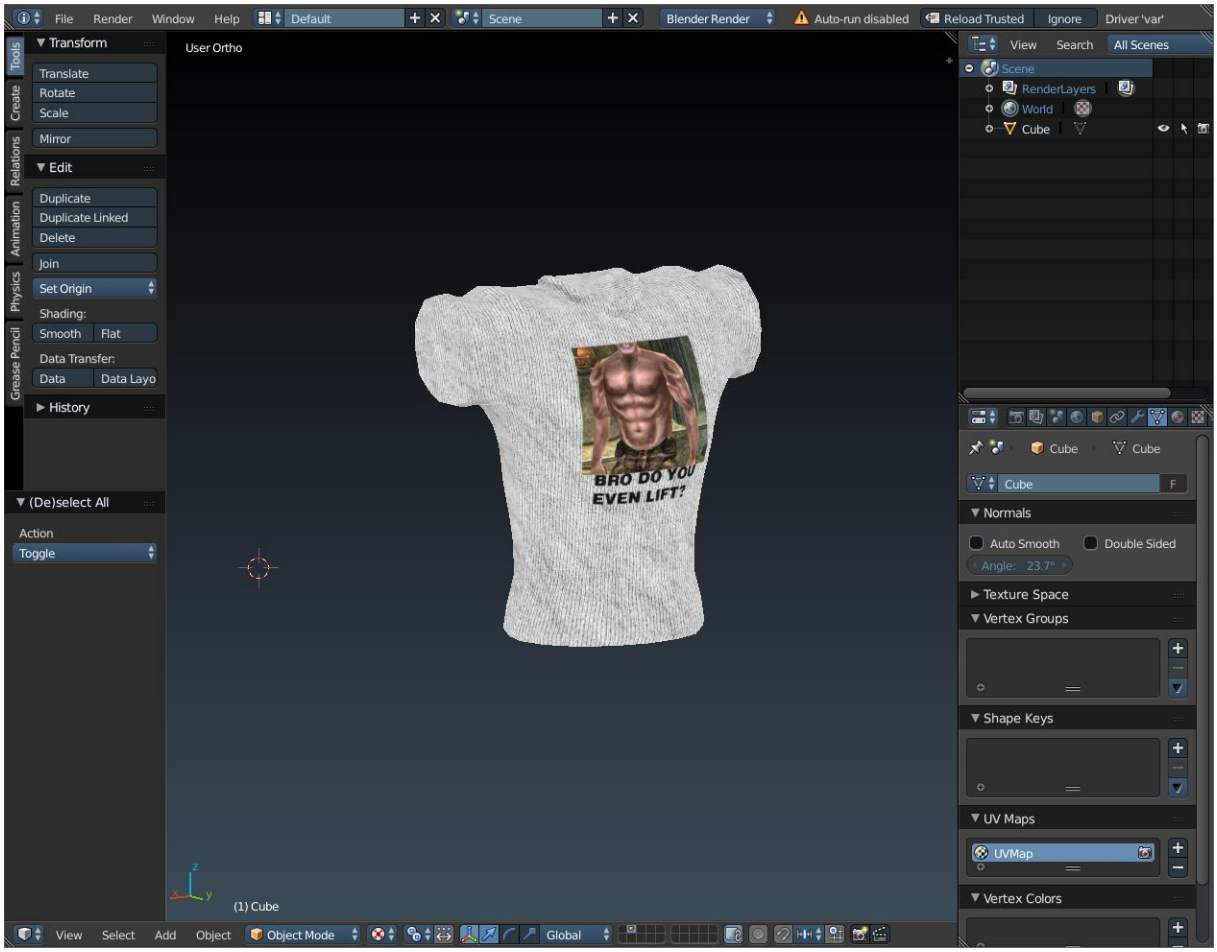
Plugin should go to *\Blender\279b\2.79\scripts\addons* directory, then you should enable it from blenders plugin manager.



After that nif import/export should be available for use

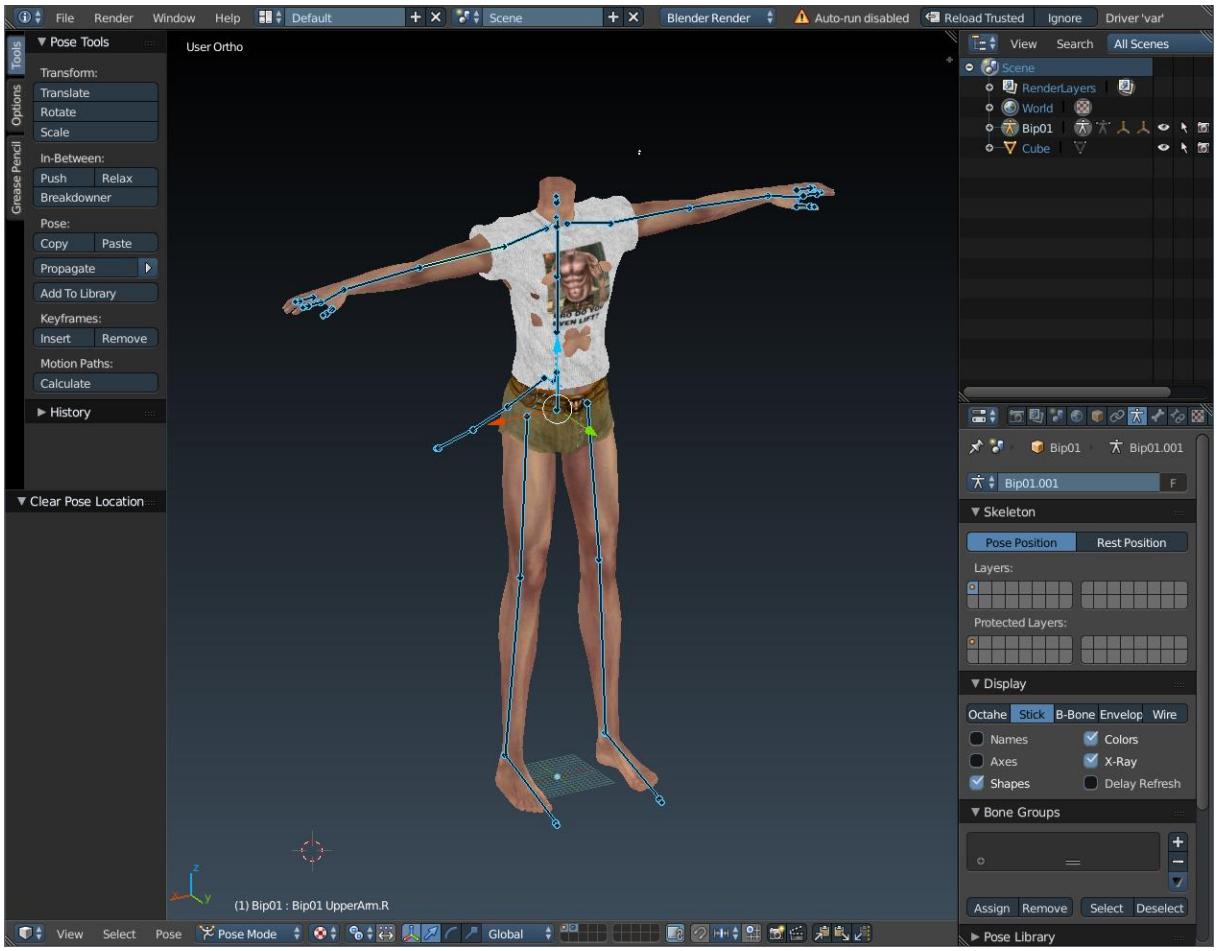
Let’s get to work

Here is our case study

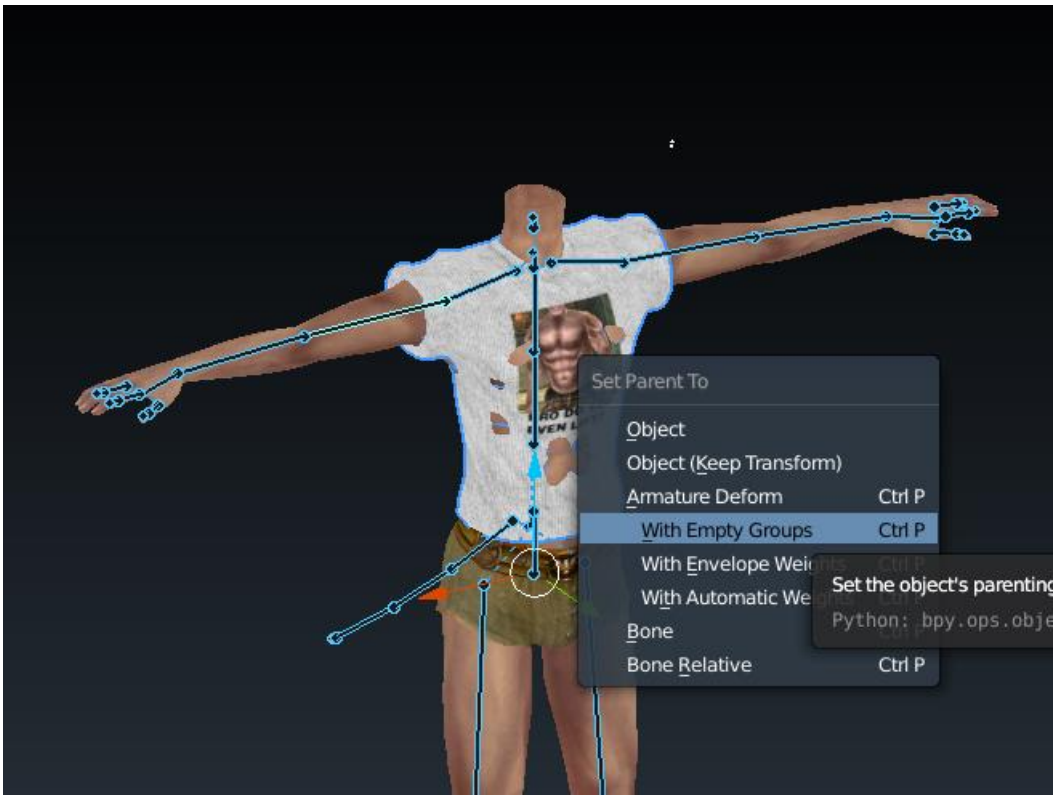


For this tutorial ill use import of skeleton and mesh included in Roberts Bodies for MW, you can use BB if you want. I recommend using layers.

Seems our shirt is bit off, it's because skeleton has some pose applied, go into pose mode, select all bones with **A key** and hit **Alt+G** to clear Location Transforms, that should give us true rest position



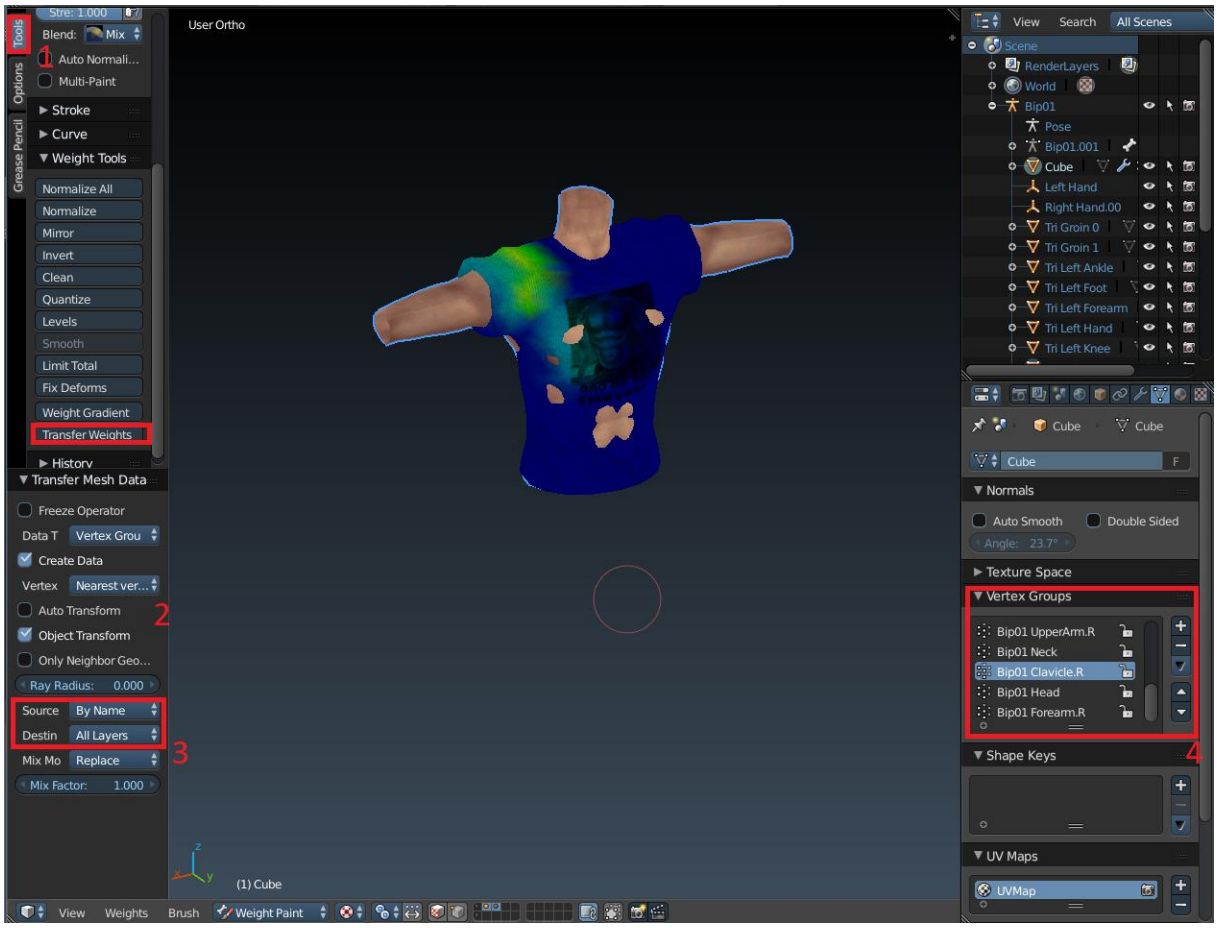
Fixed, now we need parent our mesh to the skeleton. We need to select our mesh (named **Cube**), hold **Shift**, and then click skeleton **Bip01**. You can do this on either viewpoint or on nodes in outliner (that tree thing in upper right). Press **Alt+P** and a panel should pop.



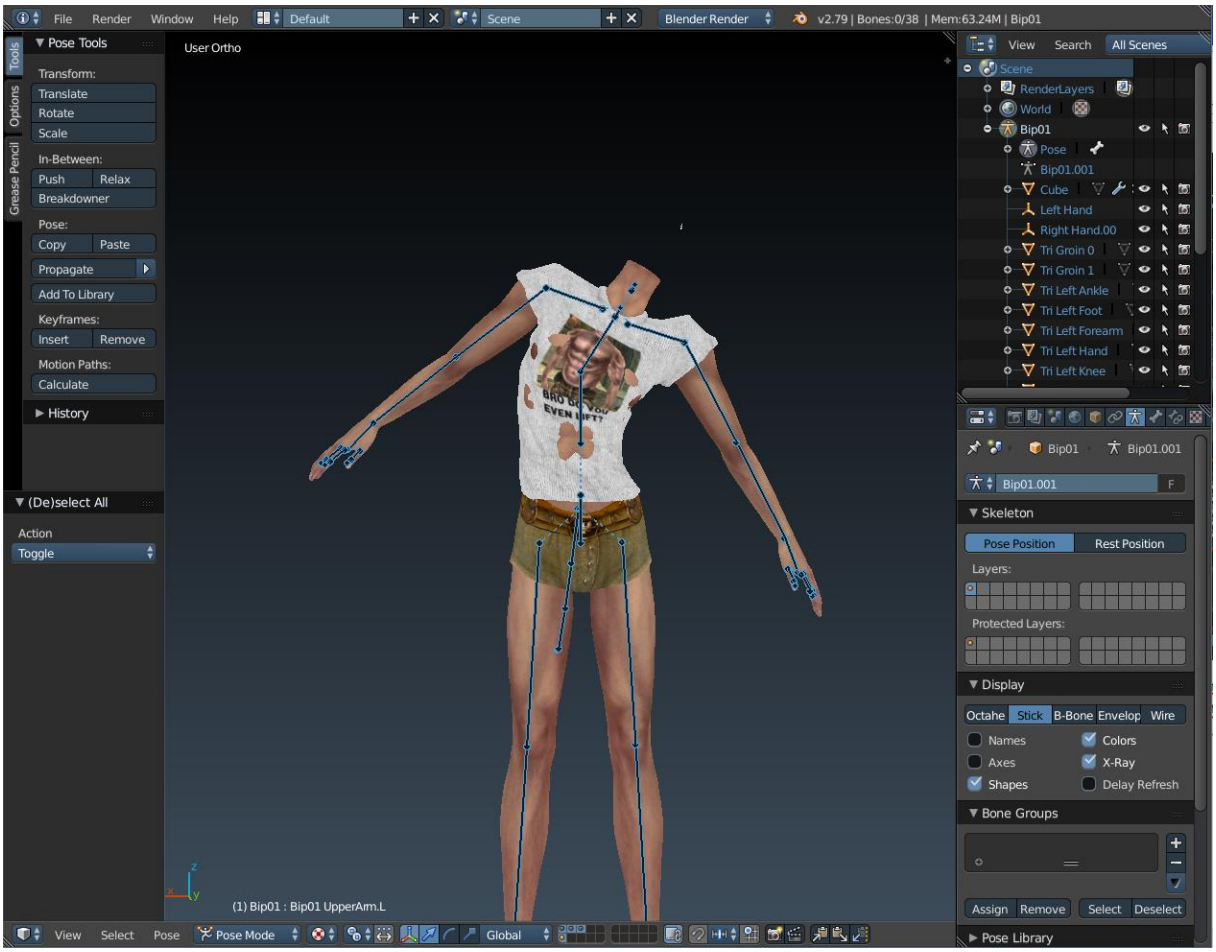
Select **Armature deform->With Empty Groups**

Now we see our mesh parented to skeleton **Bip01**. Armature modifier was applied to our mesh as well. Now we can do the weighting part. We will make our job easier by using weights from imported body.

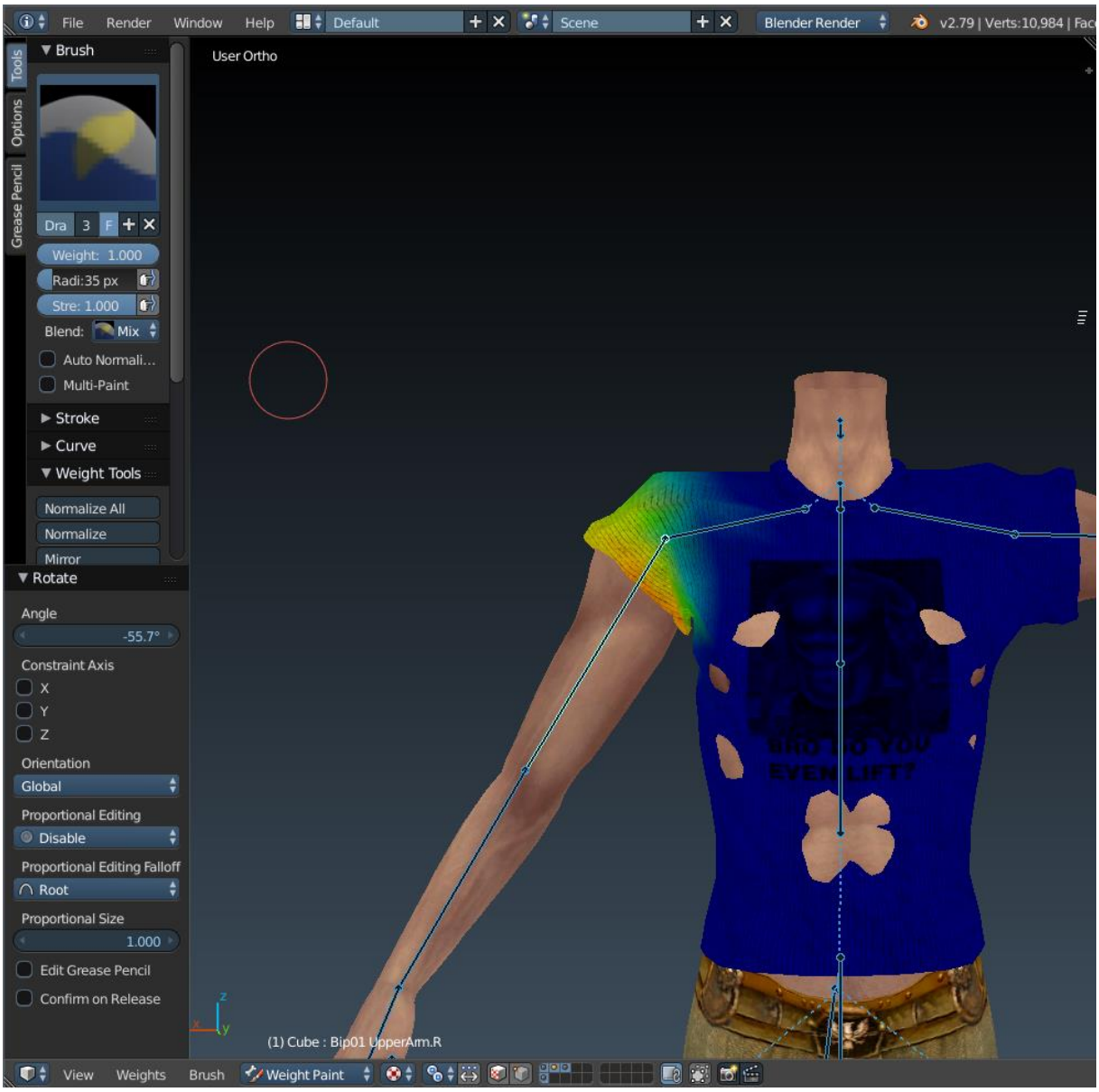
I done couple of things here: Moved skeleton to separate layer, joined upper arms with chest as one mesh and moved all what we need to separate layer. We see our **Cube** mesh has no Vertex Group, time to steal some from body we got.



First select source mesh (body) and target (one without vertex groups). Then go to weight paint mode (**Ctrl+Tab**). And as numbers on screen above, from left shelf pick **Tools**, scroll down a little and pick **Transfer Weights**. Transfer Mesh Data panel will show and there pick: **Source->By Name** and **Destin->All layers**, and poof we have our mesh rigged automatically!



Now we can good around in pose mode to check the effects. Remember to reset pose to rest just in case (**Alt+R** clears rotations). This was an easy example, we don't really need to edit weights manually. But for most times we need at least tweak things.



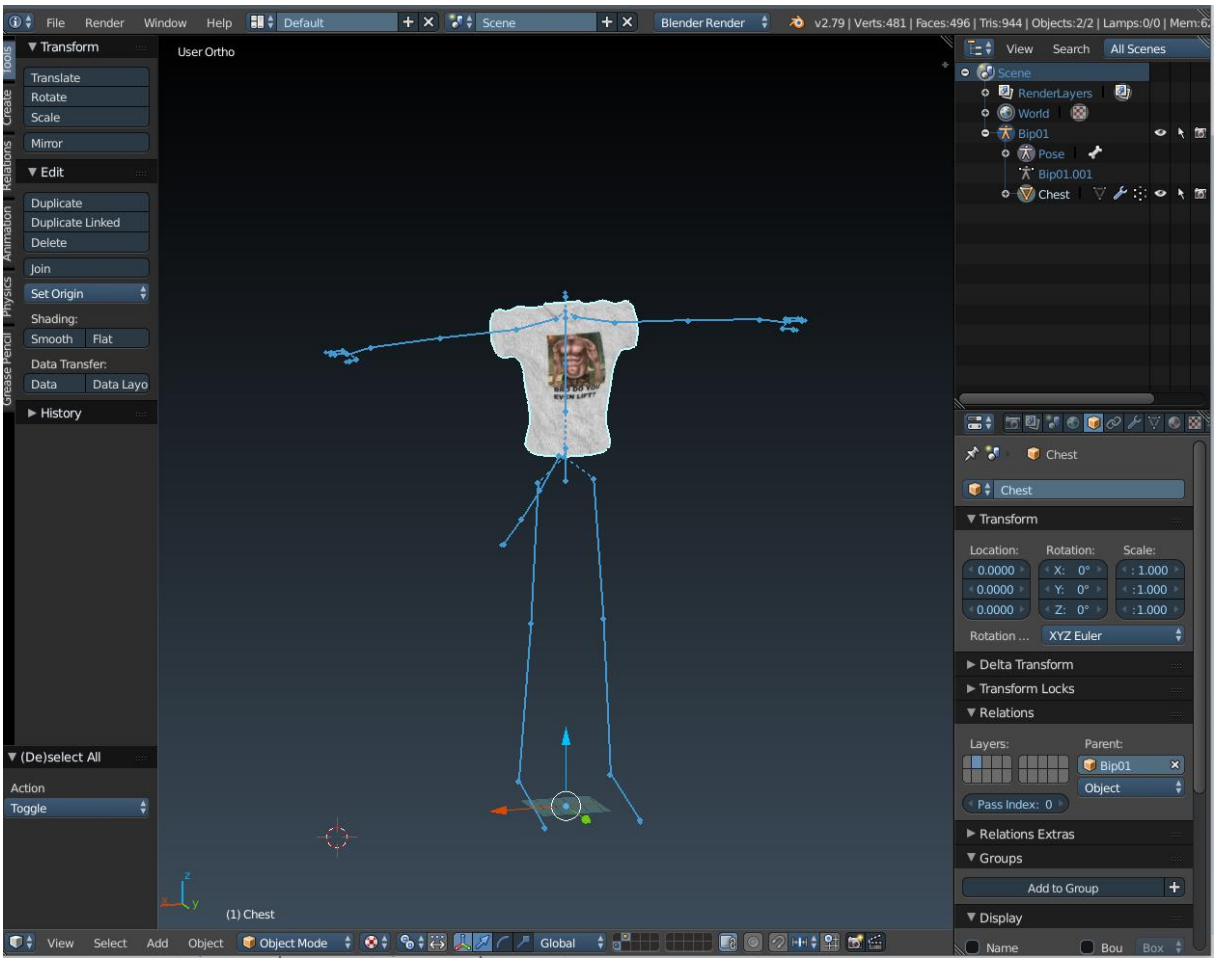
For manual tweaks go to **Weight Paint** mode (**Ctrl+Tab).** Pick a bone and start tweaking, the more red it gets the more influence that bone has over mesh. For more info and howto check blenders docs. Remember one thing, Morrowind has limitation where one vertex can belong to max 4 bones.

When you are done some cleanup is needed. From left shelf from **Weight tools** do following

- **Clean -> (All Groups)**
- **Limit Total -> (4, All Groups)**
- **Normalize All -> (All Groups, Uncheck Lock Active)**

Above is not strictly necessary, but mesh can look odd while browsing in NifSkope.

Getting our model ingame

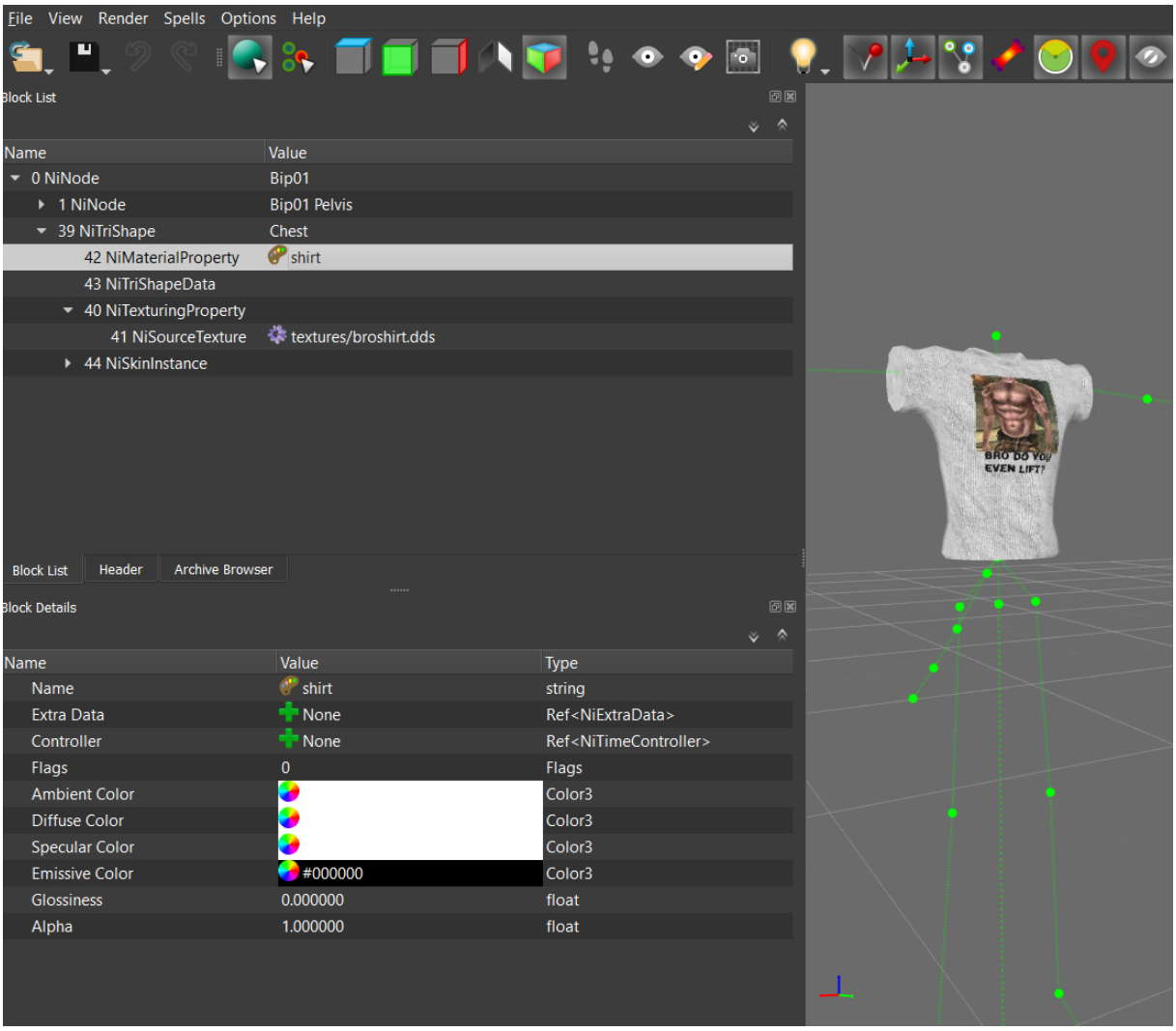


Some last tweaks are needed. You can trash rest of unnecessary models then check naming of your stuff: Skeleton must be named **Bip01**, meshes must be named after Morrowinds body parts (open Better Bodies in NifSkope for reference). In this example we named our model **Chest**. If our mesh is composed of more meshes we use pattern **Tri BodyPartName X** .

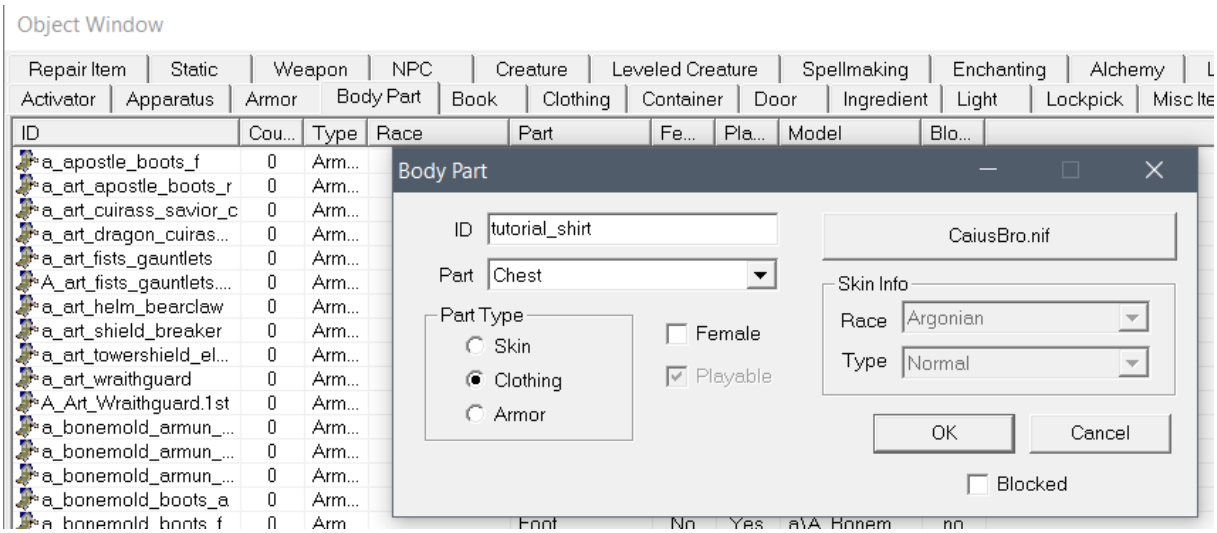
For example:

Tri Chest 0 and Tri Chest 1

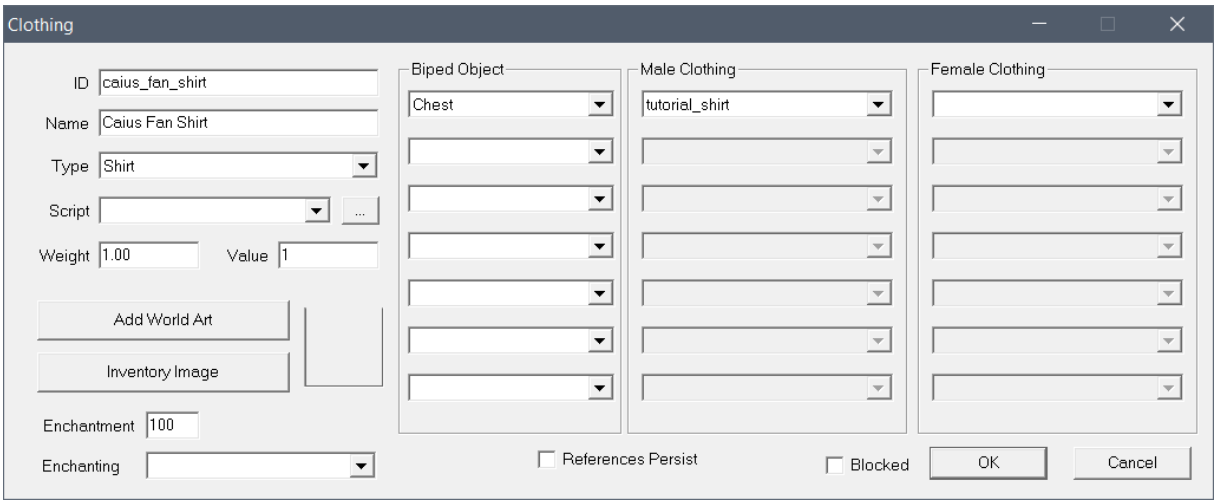
After all that hassle, we are ready to export (**File->Export->Morrowind.nif**). Now we will do some checkup in NifSkope.



All seems to look fine. Sometimes if you are not cacious enough nodes can be named bad, texture paths are messed etc. Now lets boot Construction Set and add it ingame.



First setup body part. Remember body part type must be same as name from .nif



And then the cloth/armor itself. Remember you need create separate model for world art aka model for pickable.

And here is the final effect.

Some thanks:

- **Gagatek** – for learning me basic ropes years ago,
- **Greatness7** – for exporter that finally made possible to ditch that awful old version of Blender,
- **Morrowind Modding Community** – for keeping MW modding alive,